



THE
THORP
REFERENCE BOOK
OF
FIRE PROOF DOORS



LOCAL REPRESENTATIVE

THORP FIRE PROOF DOOR CO.

1600-1610 Central Avenue
MINNEAPOLIS, MINN.

THORP FIRE PROOF PRODUCTS

On this and succeeding pages will be found illustrations, details, and specifications of the following Thorp products:

KALAMEINED DOORS, FRAMES and TRIM which may be covered in furniture steel, stainless steel, copper, bronze, nickel silver, monel metal or aluminum.

HOLLOW METAL DOORS, FRAMES and TRIM which may be made up in furniture steel, stainless steel, bronze, nickel silver, monel metal or aluminum.

EXTRUDED DOORS, FRAMES and TRIM which may be made up of bronze, nickel silver or aluminum shapes.

ELEVATOR DOORS of hollow metal or tubular construction made up in the same metals as hollow metal doors or from extruded shapes.

ROLLED and FORMED HOLLOW METAL FRAMES.

The illustrations give a slight idea of the range of design and finishes available in Thorp products. Our stock dies and mouldings permit of considerable latitude in design, but where special shapes requiring new tools are de-



Entrance in Hollow Bronze Construction for the Registry of Deeds Building, Worcester, Mass.
E. M. CORBETT, Architect

sired a small additional charge is made unless the job is sufficiently large to permit the charge to be absorbed by us.

Drawings—Shop drawings are submitted for the architect's approval before any fabrication is begun.

Where large size details or solutions of special problems are desired by architects they will be furnished upon request.

Finishes—Standard finishes on copper, bronze or nickel silver. Brass or copper plated finishes on steel for interior use only.

Plain color baked enamel or lacquer finishes on steel.

Baked-on grained finishes on steel.

Acid etched finishes on steel, bronze, nickel silver or aluminum.

Approval—Thorp products have been tested by the National Board of Fire Underwriters and approved for use with their labeled service in certain types of openings. This labeled service covers both kalamein and hollow metal doors as well as elevator openings.

ARCHITECTURAL SPECIFICATIONS

Kalameined Work—Steel Covered

All kalameined work shall be of Thorp construction having built up white pine cores. Cores for the doors shall be covered with heavy asbestos paper, the door covering being made up as a single sheet for each face of the door. Mouldings of the solid panels shall be an integral part of the stiles and rails. No nailed-in mouldings or soldered joints will be permitted. The metal covering shall be held in place by a band set in the

edge of the door fastened with long screws. Where doors are used for exterior work the cores shall be given a heavy coat of linseed oil before the application of the asbestos and metal covering. Steel covering shall be not less than 24-gauge for stiles and rails, 20-gauge for panels. This contractor shall fit for all mortise hardware. This hardware shall be delivered to the door manufacturer by another contractor, all charges prepaid.

Kalamein Work—Covered in Copper, Bronze or Aluminum

All kalameined work shall have a metal covering of not less than 22-gauge bronze, copper or nickel silver, or 20-gauge aluminum. All mouldings for solid panels shall be an integral part of the stiles and rails. The various members forming the stiles, rails and solid panel covering shall be built up with inside lock seams. All joints of mouldings shall be neatly fitted. Cores

shall be built up as specified above for steel covered work and the covers held in place in the same manner, using bands of the same metal as the covering, the bands to be held with long screws of the same metal as the covering. Fit for hardware as specified under the heading of Steel Covered Work.

SPECIFICATIONS—Continued

Hollow Metal Work

Hollow metal doors and frames shall be manufactured by Thorp. The doors shall be made up of 18-gauge furniture steel with clean, sharp mouldings, all joints being welded solid, ground smooth and rendered invisible. Cork or other suitable sound deadening material shall be placed in the stiles and rails. The panels shall be formed of two sheets of 20-gauge furniture

steel with fibre or asbestos board filling. Mouldings for glass panels shall be welded into frames, stationary moulding being welded in place. Provide reinforcement for, cut, and fit for all mortise hardware which will be furnished to this contractor by another contractor.

Hollow Bronze, Nickel, Aluminum or Stainless Steel

The work under this heading shall be (specify kind and gauge of metal), all joints shall be neatly fitted, securely fastened by riveting, or welding where welding is suitable, ground smooth

and rendered invisible. The specifications governing the sound deadening and fitting of hardware for hollow steel work shall apply to this work also.

Labeled Openings

Labeled doors shall be furnished where called for, they shall be built in accordance with the requirements of the National

Board of Fire Underwriters, and shall bear the proper labels for the openings in which they occur.

Note: U. S. Standard gauges are used for steel and monel metal; Browne and Sharpe gauges for other metals.

Finishes

The following specifications cover the various finishes on steel covered kalameined doors, frames and trim or hollow steel doors, frames and trim.

Primed—All work shall be thoroughly cleaned of grease, rust and other impurities, sanded smooth, glazed, and given a prime coat of red oxide.

Enameled—All work shall be thoroughly cleaned of grease, rust and other impurities, sanded smooth, glazed, and given a 7-coat baked enamel finish in colors to be selected. It shall be well sanded between coats, the final coat being rubbed to an eggshell finish.

Grained—All work shall be thoroughly cleaned of grease, rust and other impurities, sanded smooth, glazed, and given a 7-coat baked-on grained finish to match the adjoining woodwork. It shall be well sanded between coats, the final coat being rubbed to an eggshell finish.

Lacquered—All work shall be thoroughly cleaned of grease, rust and other impurities, sanded smooth, glazed, and given a 7-coat lacquer finish in colors to be selected. The work shall be lightly sanded between coats so that the final coat presents a smooth eggshell finish.

Acid Etching on Steel—(Not recommended for exterior work.) Acid etch work where shown to match sample selected finishing same with 2 coats of clear lacquer.

Plated Finish—(Used on Kalameined work only—not recommended for exterior work.) Thoroughly clean all work of grease or scale, copper plate and finish to color selected. Finished work to have a heavy coat of clear lacquer.

Satin Finish—Kalameined work covered in copper or bronze shall be given a satin finish oxidized to color selected and given a heavy coat of clear lacquer.

Hollow bronze work shall be given a satin finish oxidized to the shade selected and given a heavy coat of clear lacquer.

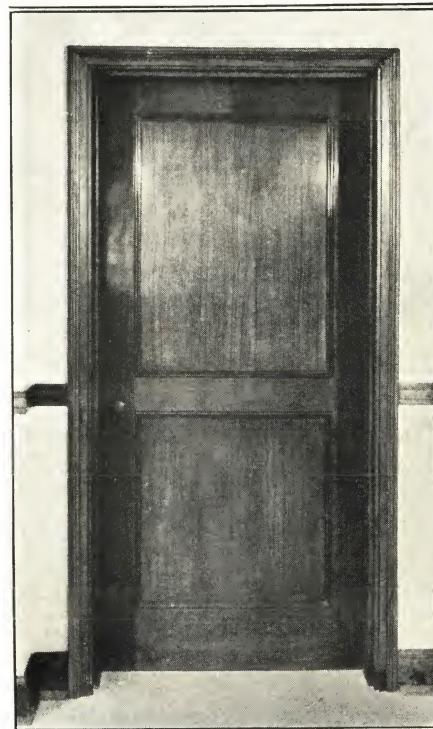
Bronze covered kalameined work and hollow bronze work shall have a satin finish left natural and given a heavy coat of clear lacquer.

Kalameined work covered in white metals, hollow work in white metals shall have a satin finish with a heavy coat of clear lacquer.

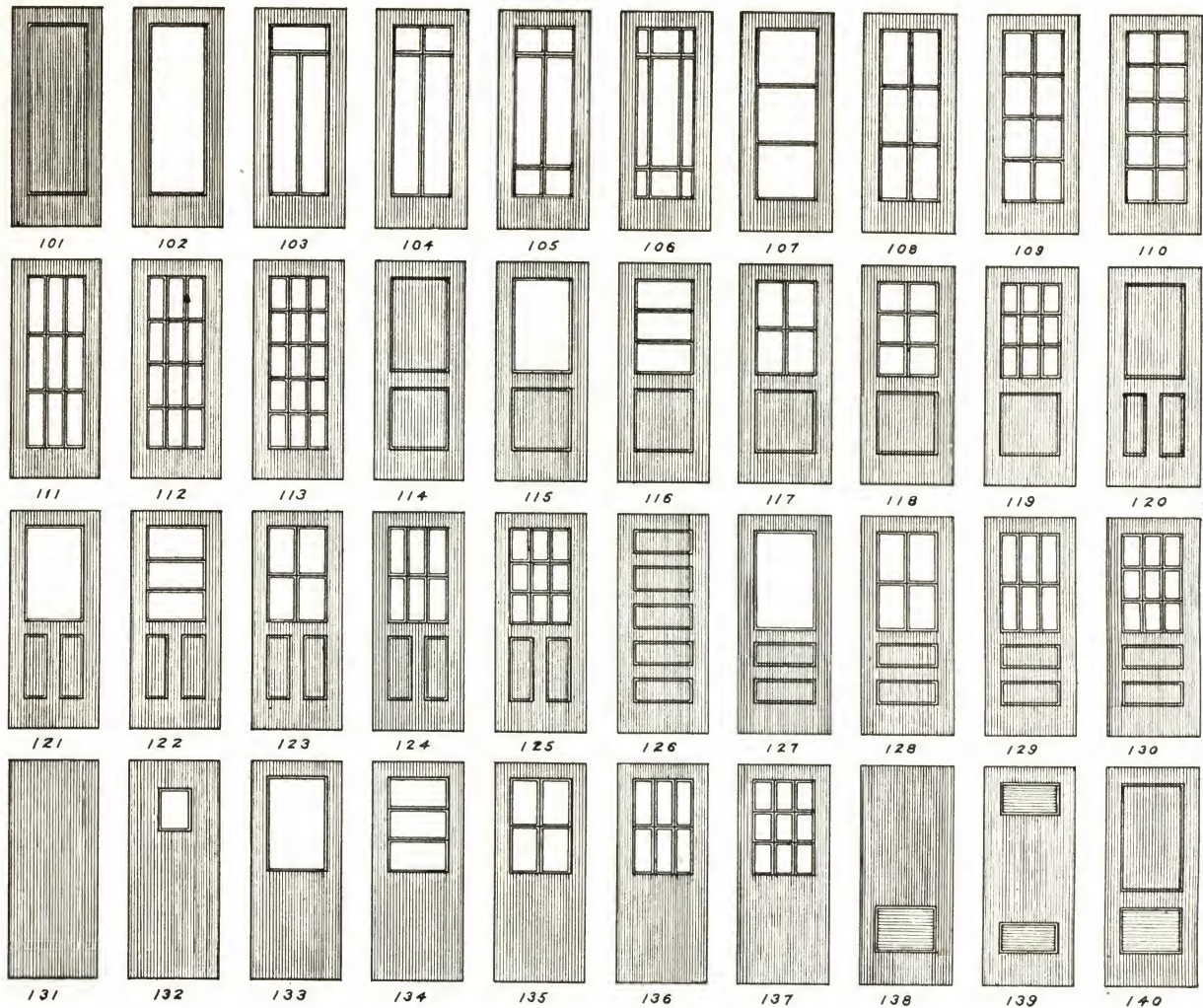
Samples—The manufacturer shall submit to the architect and obtain his approval of samples of the various finishes required for the above work.



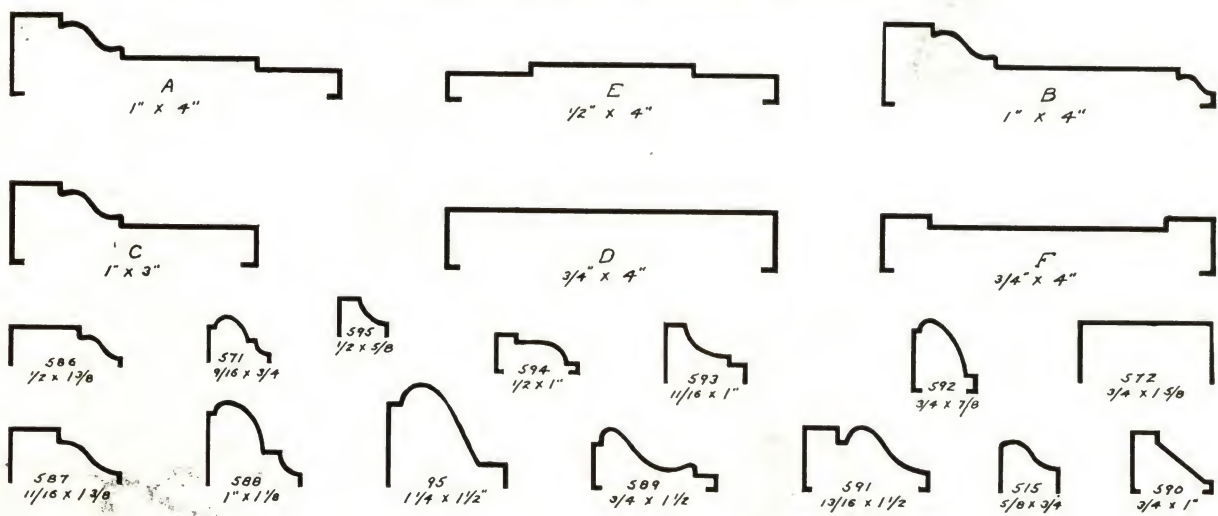
Labeled Kalamein Stair Door in Grained Finish,
Northwestern National Bank, Minneapolis, Minn.
GRAHAM, ANDERSON, PROBST & WHITE, Architects



Hollow Steel Stair Door in Grained Finish,
Spokane & Eastern Trust Co., Spokane, Wash.
A. MOORMAN & Co., Architects



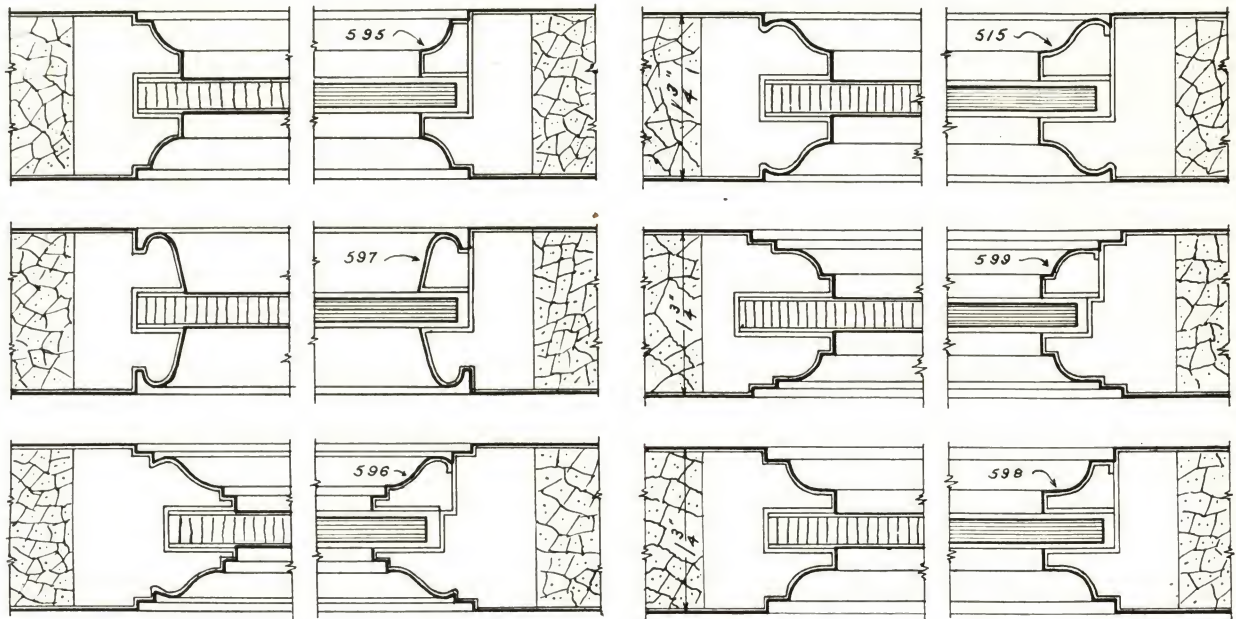
· SUGGESTIVE SWING DOOR DESIGNS ·



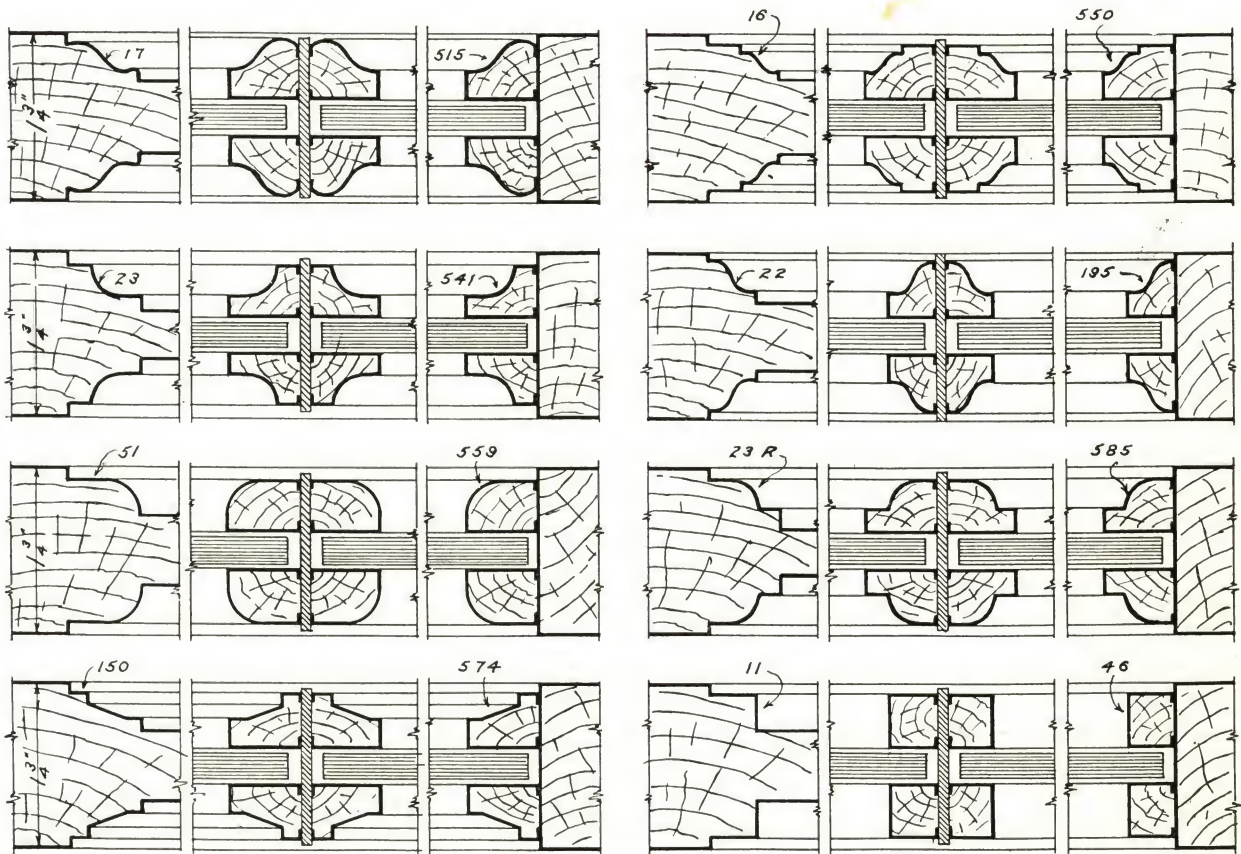
· SOME SELECTED CASINGS AND MOULDINGS ·

· DOOR DESIGNS AND HOLLOW TRIM ·

· UNDERWRITERS LABELS · IF · REQUIRED ·

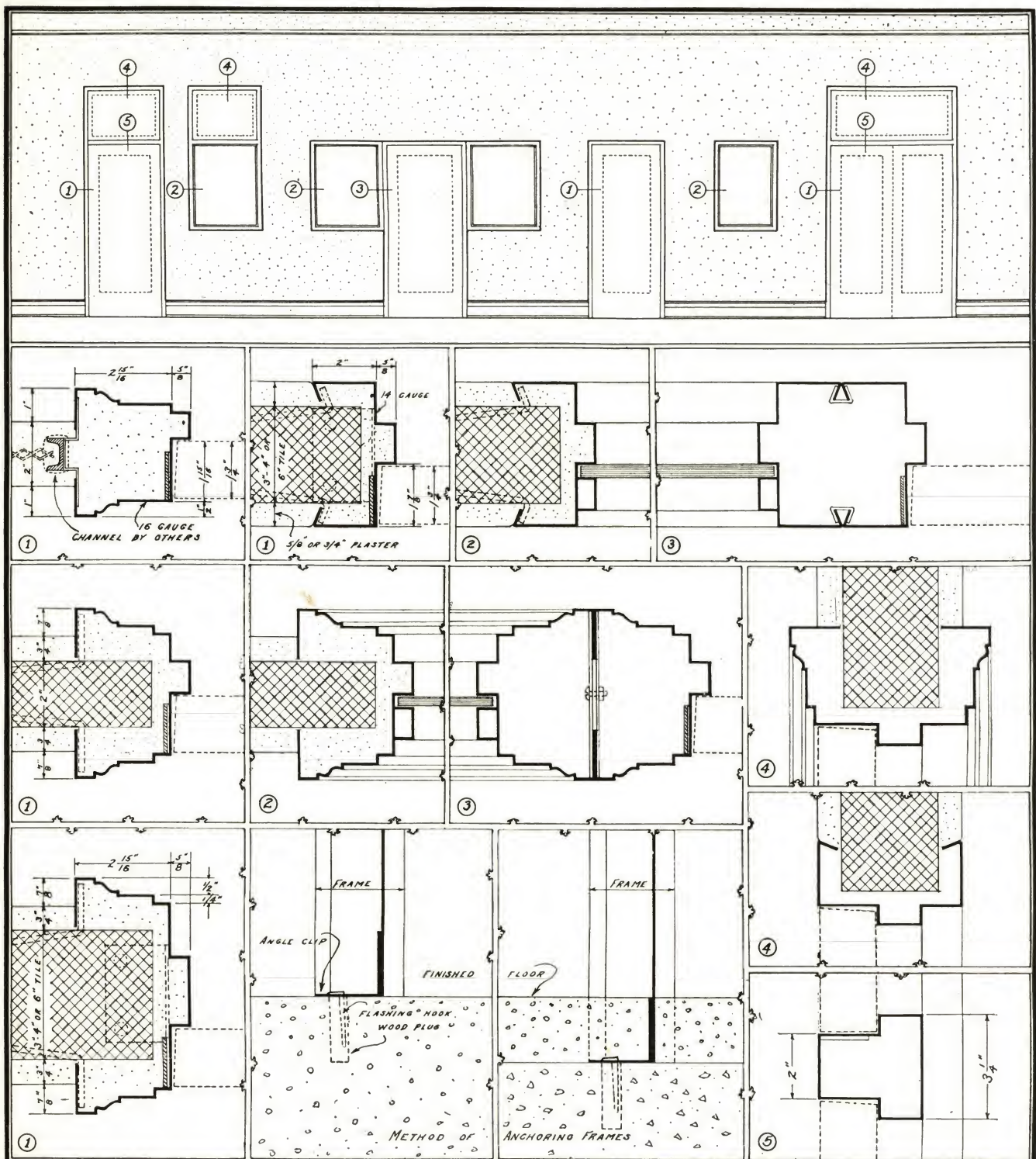


PANEL AND GLASS MOULDS FOR HOLLOW DOORS



PANEL AND GLASS MOULDS FOR KALAMEIN DOORS

PANEL AND GLASS MOULDINGS



Hollow Frame Specifications

Rolled Hollow Metal Frames—Hollow metal frames shall be Thorp standard rolled sections 16-gauge moulded combination frame and casing or 14-gauge plain frame. All joints shall be neatly fitted, solidly welded and ground smooth. Provide reinforcement for, cut and fit for mortise hardware. Provide wire anchors for anchoring frames to tile or brickwork and angle clips at the bottom of each jamb for anchoring same to rough floor. (Corrugated sheet anchors and channel spreaders furnished at an extra charge.)

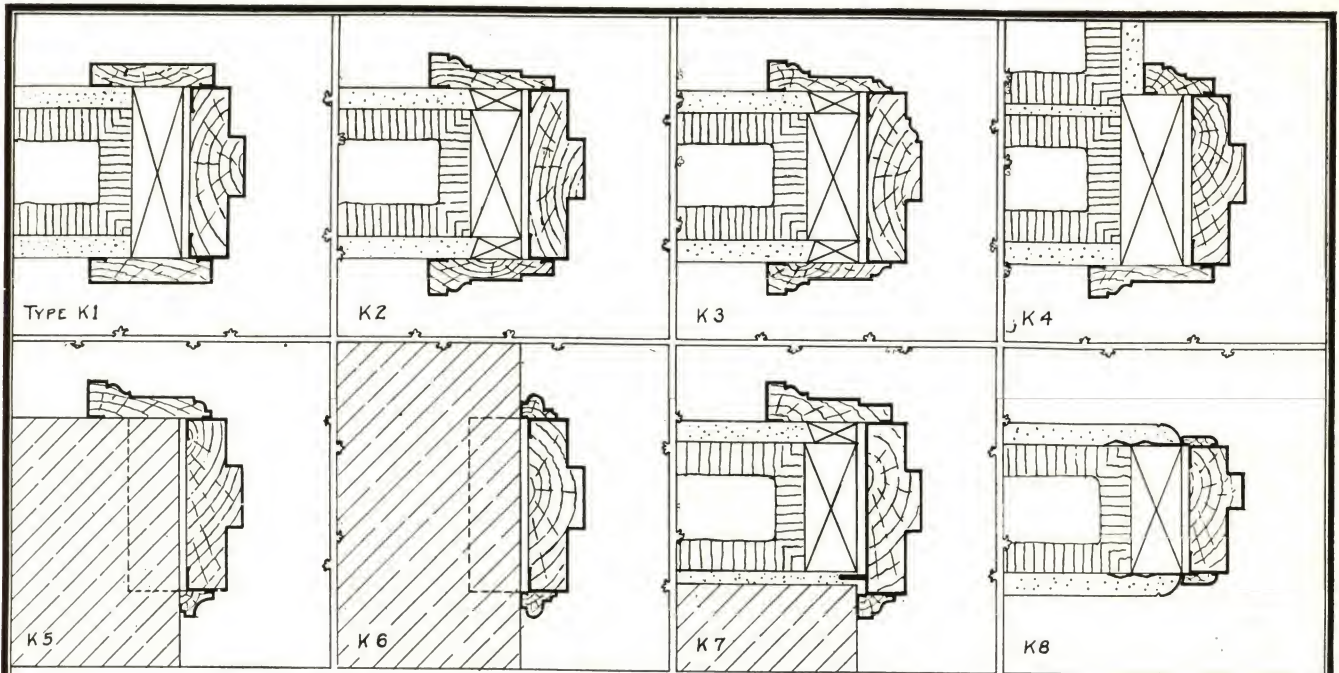
Formed Hollow Metal Frames—Where hollow metal frames are of the unit type they shall be of 12, 14, or 16-gauge furniture

steel formed as detailed. All joints shall be neatly fitted, solidly welded and ground smooth. Provide reinforcement, cut and fit for mortise hardware. Provide wire anchors, etc., as specified for Rolled Frames.

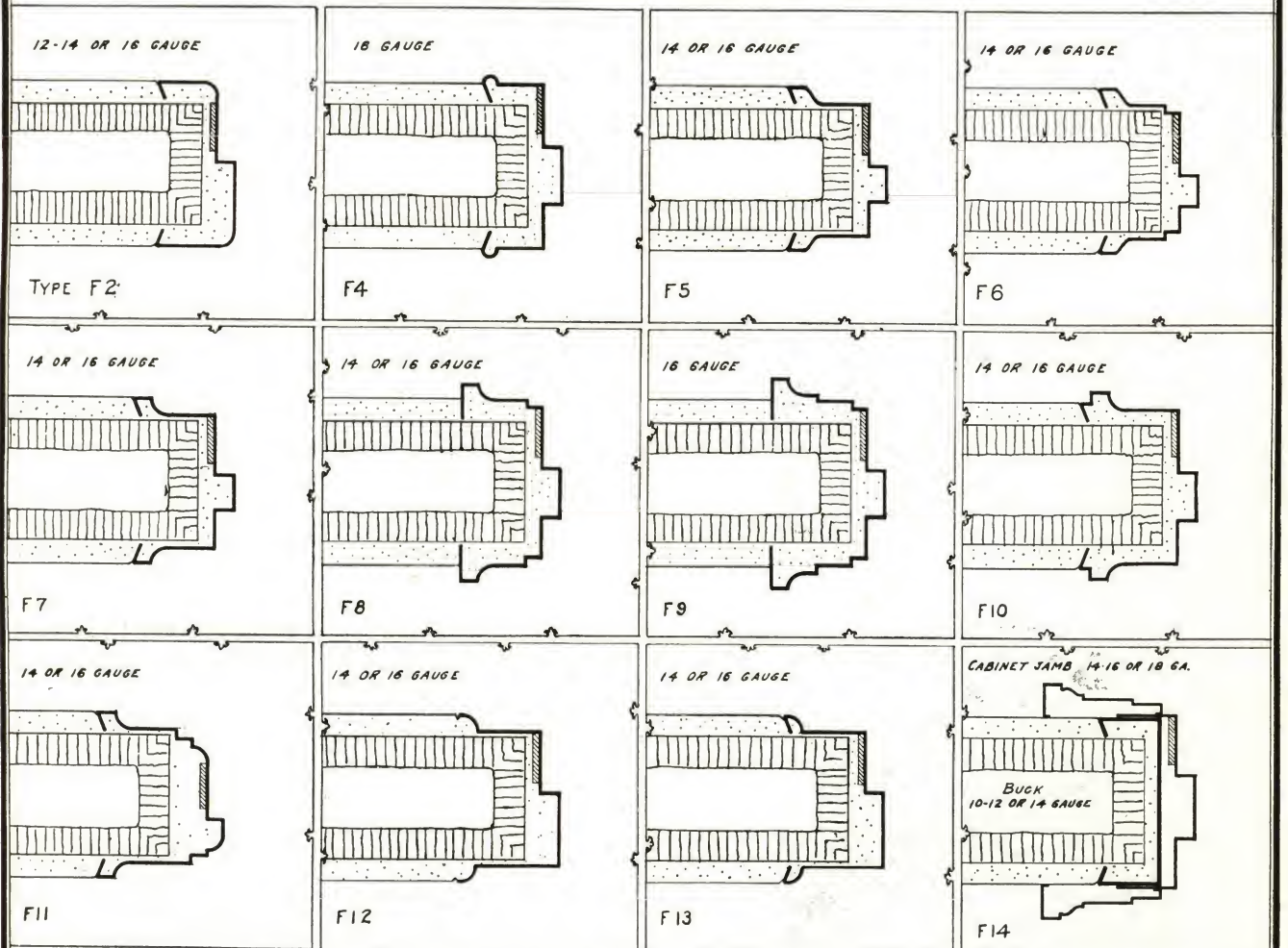
Cabinet Jambs and Rough Bucks—Cabinet jambs shall be not less than 18-gauge steel reinforced for, cut and fitted for hardware. Rough bucks shall be of not less than 14-gauge steel equipped with anchors, etc. as specified under the heading of Rolled Metal Frames.

ROLLED COMBINATION BUCK JAMB AND TRIM FRAMES

FRAMES ALSO ROLLED WITH RABBETS FOR 1-3/8" DOORS
UNDERWRITERS LABELS IF REQUIRED



STANDARD KALAMEIN FRAMES AND TRIM



FORMED COMBINATION BUCK JAMB AND TRIM FRAMES
UNDERWRITERS LABELS IF REQUIRED

TYPES OF SWING DOOR FRAMES

THORP ELEVATOR ENCLOSURES

Thorp elevator enclosures are made in a variety of designs, materials and finishes, some of which are shown on this page and covered by the specifications.

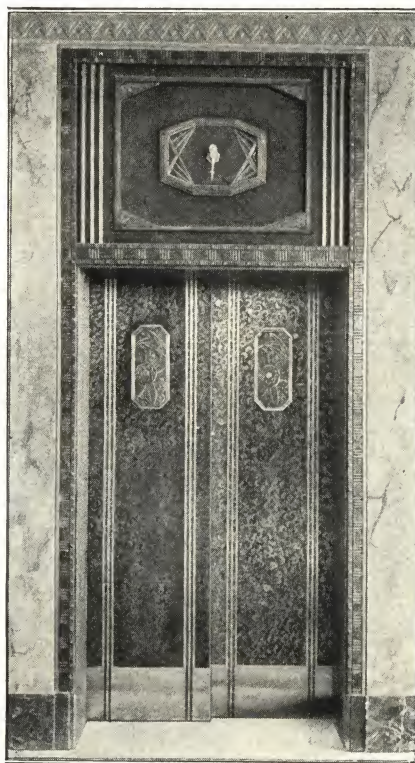
In addition to the examples shown we are prepared to furnish enclosures in which the doors and trim are embellished with etched designs on steel, bronze, or any of the white metals, or with cast ornaments in the same metals. Enclosures may also be built up of extruded sections of bronze, nickel silver (white bronze) or aluminum.

Thorp elevator enclosures have

been tested by the National Board of Fire Underwriters and approved by them for labeled service in Class B and C openings. This service will be furnished when specified.

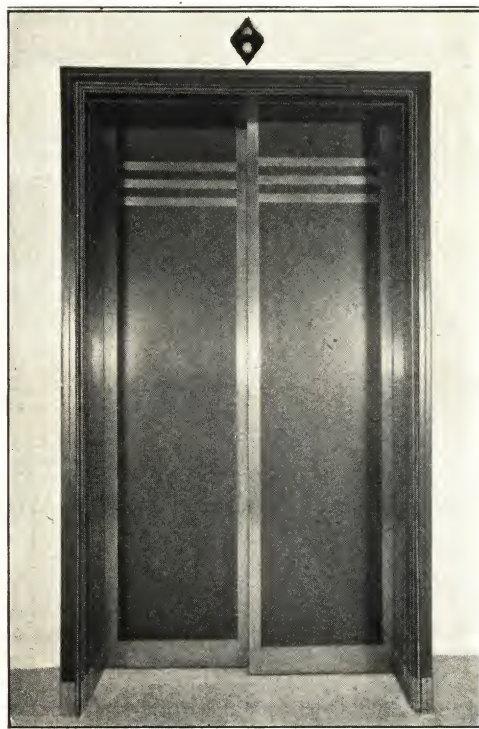
For these labeled openings the Underwriters require interlocking members where the doors overlap each other and overlap the frame at the jambs and head. A special type of construction is also required for the doors.

Our Engineering Department is ready at all times to co-operate with architects and elevator contractors in working out problems of construction and design.



Passenger Elevator Doors with Nickel Silver Ornamentation on Etched Steel, Spokane & Eastern Trust Co. Building, Spokane, Wash.

A. MOORMAN & Co., Architects



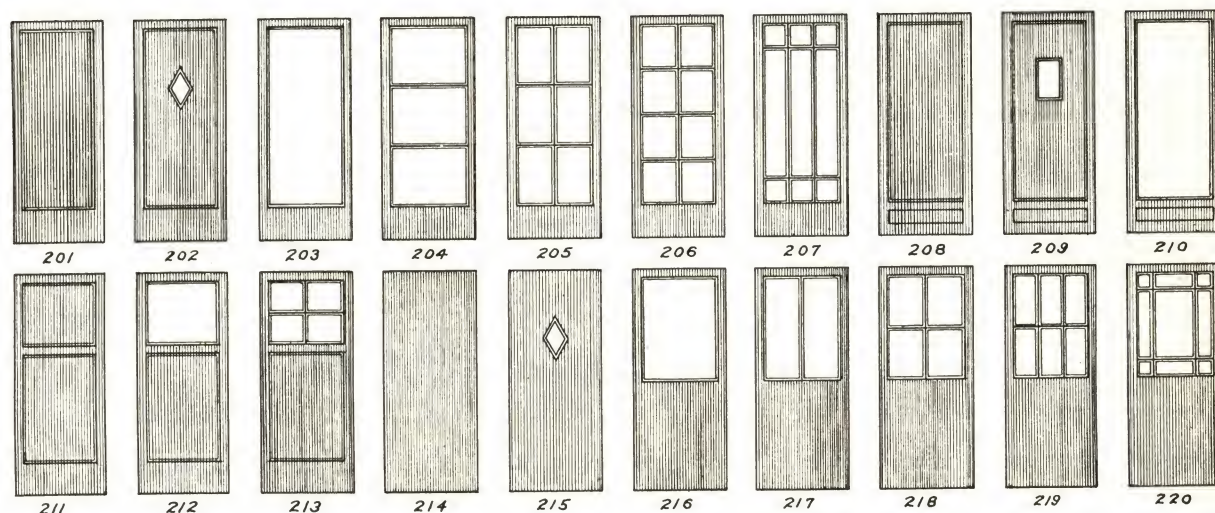
Passenger Elevator Doors, Labeled Construction, Lacquer Enamel Finish, Nickel Silver Trim, Main Central Office Building, Minneapolis, Minn.

HEWITT & BROWN, Architects



Steel Elevator Doors, Tube Construction with Cast Grilles and Ornament, Enameled Finish, Elks Club, Memphis, Tenn.

GEO. MAHAN, JR. and J. J. BROADWELL, Architects



SUGGESTIVE ELEVATOR DOOR DESIGNS

Specifications for Elevator Enclosures

Doors—Elevator doors shall be of tubular construction or of 18-gauge hollow construction of the design and type shown. All joints shall be neatly welded, ground smooth and rendered invisible. Mouldings shall be selected from the manufacturer's stock dies; they shall be neatly mitred and welded into frames. Stationary glass panel mouldings in steel doors shall be welded in place, loose mouldings fastened in place with special head machine screws. Panels shall be formed of two sheets not less than 20-gauge with fibre board or asbestos board filler between. Provide reinforcements, cut out and fit for hardware. Bottom of doors shall have a continuous fin full width of the bottom rail with specially treated noiseless fibre pads at each end.

Combination Frame, Buck and Trim—Frames shall be combination frame, buck and casing not less than 16-gauge steel with track housing and movable track cover. The track reinforcement shall be not less than $\frac{3}{8}$ -in. plate extending the full length of the track. Provide closer supports extending from the sill to the overhead beam with an angle strut at the striker jamb extending from the head of the frame to the overhead beam. Provide hardware reinforcement. All joints shall be neatly fitted, welded and ground smooth.

Cabinet Jambs, Trim, and Rough Bucks—Provide rough bucks of not less than 14-gauge steel with track housing and movable track cover. The track reinforcement shall be of not less than $\frac{3}{8}$ -in. plate extending the full length of the track. Provide closer supports extending from the sill to the overhead beam with an angle strut at the striker jamb extending from the head of the frame to the overhead beam. Provide hardware reinforcement. The cabinet jambs shall be not less than 18-gauge furniture steel, the trim shall be not less than 20-gauge furniture steel. All joints and trim shall be neatly fitted, welded and ground smooth.

Sills—Sills shall be cast iron (cast bronze or aluminum) with checkered or fluted non-slip surfaces (or an abrasive surface). The grooves shall be machine cut and all screw and bolt holes drilled and tapped to template. Furnish suitable anchors for attaching sills to the rough floor or beams.

Shaft Fascias—These shall be of not less than 14-gauge furniture steel, reinforced and stiffened to eliminate vibration. They shall extend 8 in. on each side of the car opening from the head of the track housing to the sill of the floor above. Place toe guards at the bottom landings extending 18 in. below the finished floor.

Track and Hangers—Specify make and type desired.

Closers and Interlocks—These are usually specified as part of the elevator machinery contract; if included in this work specify make and type.

Finishes—The same specifications for finishes on hollow metal doors, frames and trim may be used for this work.

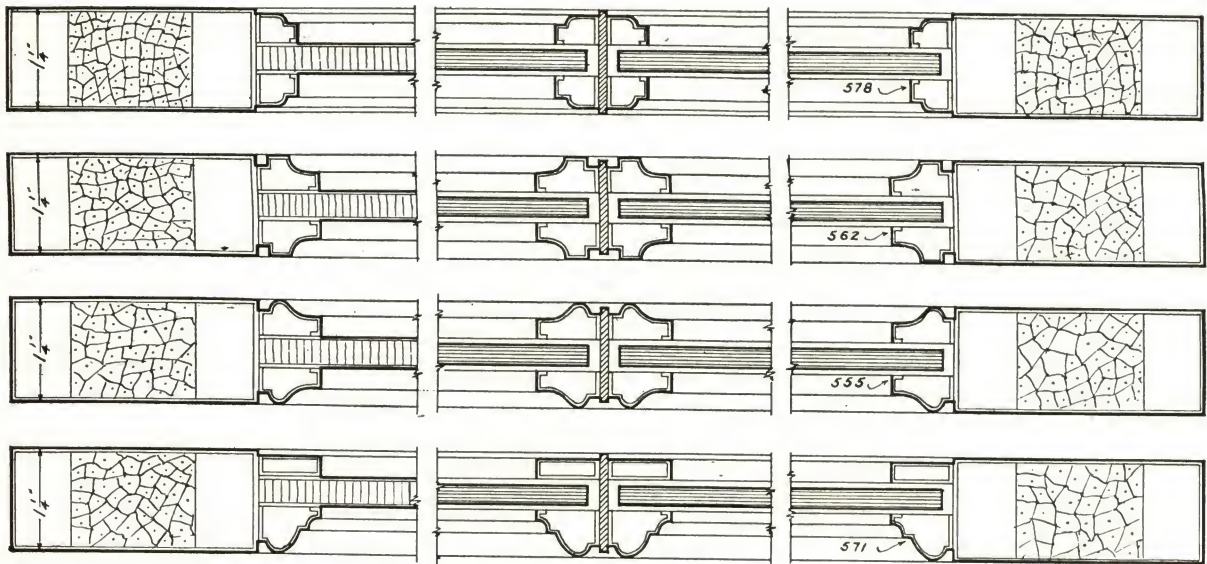
Etched Work—The architect will furnish the designs for the etched work which shall be followed as faithfully as this class of work will permit. Etching shall be cut sufficiently deep to show sharp, clear lines. Oxides shall be used to obtain the shading effect on non-ferrous metals; lacquer enamels shall be used for other colors. The finished work shall be given a heavy coat of clear lacquer. Submit prints of the design and samples of colors to the architect for his approval before proceeding with the work.

Cast Ornament—This work shall be in accordance with the architect's details. Submit photographs of the models for approval before beginning manufacture. All lines shall be clear and sharp, background shall have a sanded finish, the high lights polished.

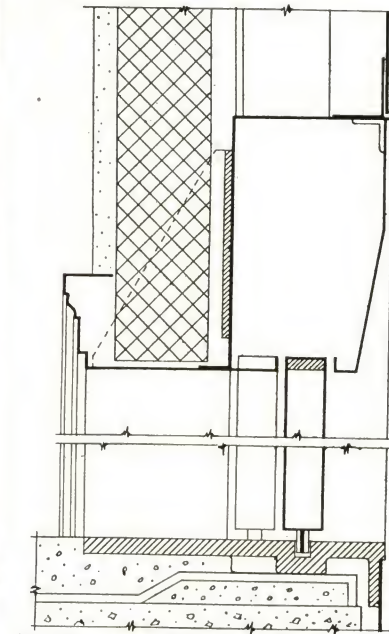
Labeled Openings—The elevator openings shall be built in accordance with the requirements of the National Board of Fire Underwriters and shall bear their labels.

ELEVATOR DOOR DESIGNS AND SPECIFICATIONS

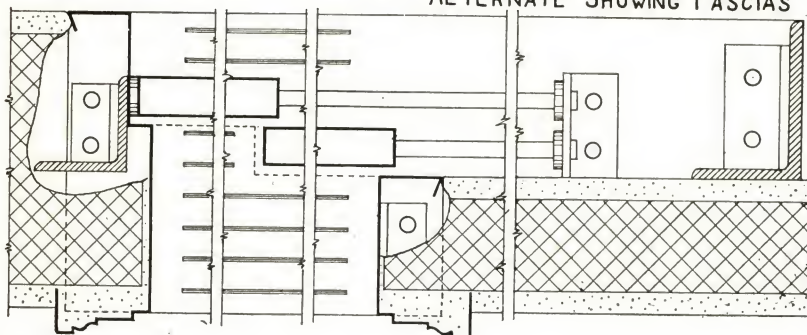
UNDERWRITERS LABELS IF REQUIRED



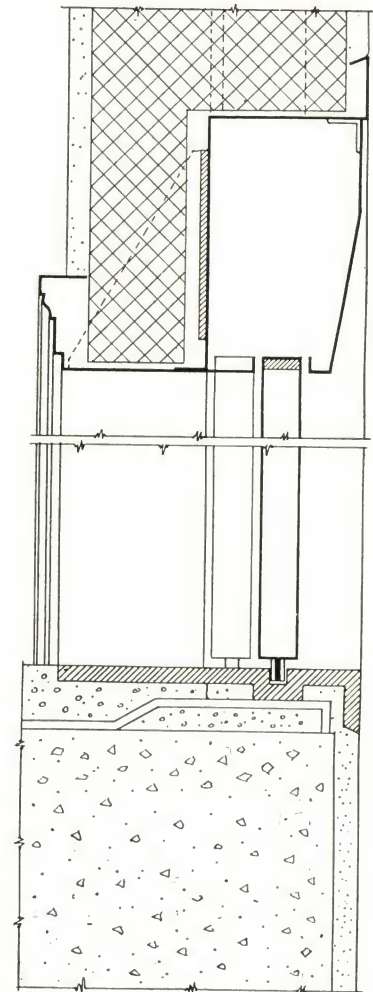
PANEL AND GLASS MOULDS



ALTERNATE SHOWING FASCIAS

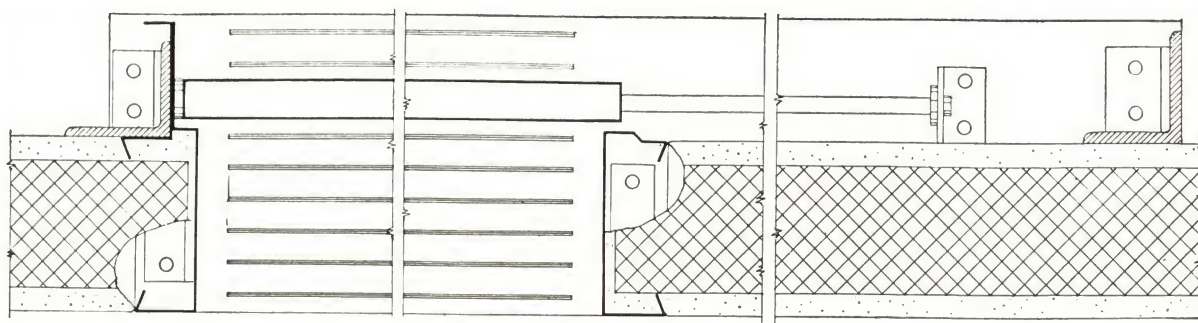


HORIZONTAL SECTION

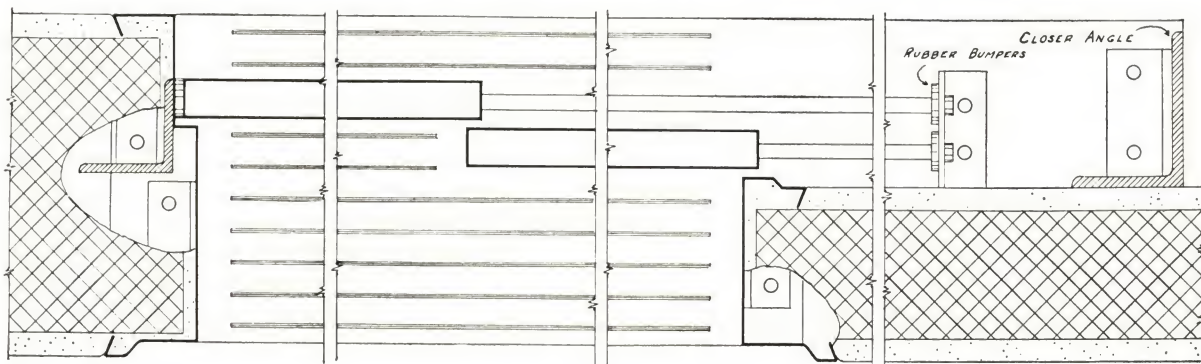


VERTICAL SECTION

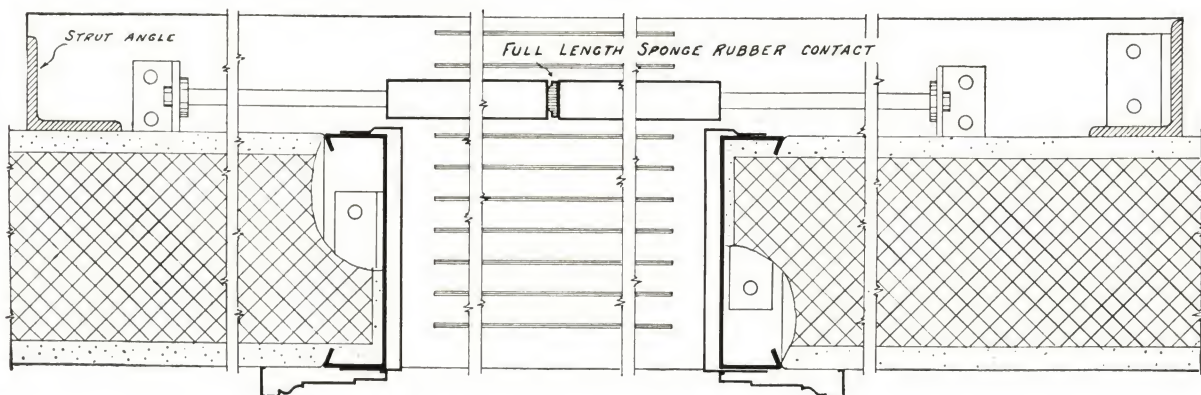
ELEVATOR DETAILS



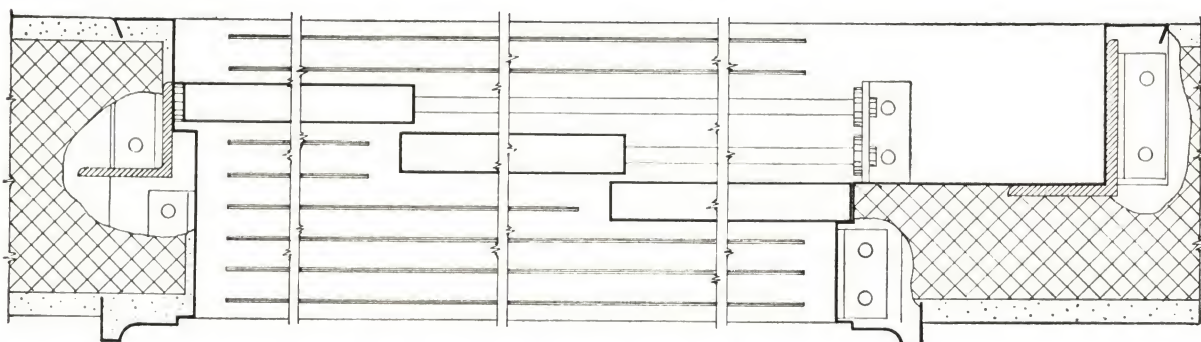
SINGLE SLIDING TYPE



TWO SPEED TYPE



CENTER OPENING TYPE



TWO SPEED AND FIXED PANEL TYPE

TYPES OF ELEVATOR ENCLOSURES



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